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Case Study

# HOLISTIC HEALING: *PANCHAKARMA* THERAPY FOR SPINO-CEREBELLAR ATAXIA MANAGEMENT

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## ABSTRACT
Spino-Cerebellar Ataxia (SCA) is a genetic disorder that gradually affects movement, balance, and speech. It occurs due to the weakening of the brain's coordination center (cerebellum) and the spinal cord. This leads to symptoms like difficulty walking, shaky hand movements, slurred speech, and trouble swallowing. In Ayurveda, it is linked to *Dhathu-Kshayajanya Vatavikara*, which refers to conditions caused by tissue degeneration and imbalance in body energy. A 24-year-old man visited the hospital with complaints of walking, writing, and speaking difficulties for five years, which had worsened in the last two years. He underwent a 14-day *Panchakarma* therapy, including *Abhyanga*, *Parisheka*, *Shastika shali pinda sweda* and *Madhutailika Basti*. These treatments significantly improved his ability to walk and control hand movements. Ayurveda takes a holistic approach to managing SCA by addressing both the symptoms and their root cause. These therapies not only provide relief but also support long-term well-being, making them a promising treatment option for this condition.

## INTRODUCTION
Ataxia is a condition where muscle coordination is lost, affecting balance, eye movement, and speech. Spinocerebellar ataxia (SCA) is an inherited (autosomal dominant), progressive, neuro-degenerative, and heterogeneous disease that mainly affects the cerebellum. It is a type of hereditary cerebellar ataxia[1]. SCA comprises more than 40 types of similar inherited brain disorders. The most common forms of SCA are types 1, 2, 3, and 6, which account for most of the disorders. SCA6 causes balance issues, trouble walking and speaking, and involuntary eye movements that may affect vision. Other symptoms can include nerve damage, reduced sensation, muscle stiffness, exaggerated reflexes, and difficulty controlling eye movement. It usually starts between ages 20 and 50 and worsens gradually[2].

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Causes includes CNS vasculitis, multiple sclerosis, infections, bleeding, strokes, tumors, injuries, toxins (like alcohol), and genetic disorders. Diagnosing its cause often requires brain scans, lab tests, and a detailed family history[3]. A systematic review previously estimated the worldwide prevalence of SCA to be 2.7 cases per 100.000[4].

**Symptoms of SCA:** Usually appear in adulthood but can start in childhood. While specific types may have unique signs, common symptoms include:

- Gradual loss of balance and coordination
- Tremors and unsteady movements in the arms and legs
- Trouble walking
- Weak muscles
- Vision issues, including trouble focusing and involuntary eye movements.
- Difficulty speaking and swallowing.[2]

Ayurvedic texts doesn't have direct mentioning of cerebellar ataxia. However, based on symptoms, it can be classified under *Vatavyadhi* with *Dhatu Kshaya samprapti* with a special reference to *Mastulunga kshaya*. Since the cerebellum is part of the midbrain which can be correlated with *Mastulunga* which is

considered as *Shirogata sneha*, its degeneration may relate to *Mastulunga Kshaya* or *Majjakshaya*.

*Astanga Sangrahakara* describes *Mastulunga* as a *Majja Dhatu* and appears like solid ghee *(Avilina Ghrita).*

तृतीया मेदोधरा नाम|
मेदो हि तस्यामुदरेऽण्वस्थिषु च सरक्तं भवति|
तदेव च शिरसि कपालप्रतिच्छन्नं मस्तिष्काख्यं मस्तुलुङ्गाख्यं च स्थूलास्थिषु च मज्जा ||३३||

According to *Induteeka*, it is *Medodhatu*, which turns into *Mastulunga* and it is *Medodhatu* again which gets turned into *Majjadhatu.*

*Acharya Vagbhata* described *Bhrama* as a sign of *Majjakshaya*, which can be linked to the loss of balance seen in cerebellar ataxia[5]. *Acharya Charaka* in *Sutra sthana* stated that if there is *Majja kshaya* it will leads to *Ghora Vatavyadhi[6].* Other symptoms of *Vatavyadhi* like *Gati sangha, Kampana, Mookatva* and *Sthambana* can be co-related to impaired gait, tremors, speech disturbances, spasticity respectively. Considering the *Dhathu-kshaya samprapti, Brihmana basti* in the form of *Madhutailika basti* was adopted for the purpose of *Samprapti vighatana.*

## MATERIAL AND METHODS

Various references have been collected from available Ayurvedic text and their commentaries, modern texts and related websites have been searched.

## Case Report

### Chief complaints

Difficulty in walking, writing, and speaking since 5 years, aggravated since 2 years.

### Associated complaints

Stiffness in B/L upper and lower limbs, blurring of eyes since 2 years.

### History of present illness

A 24-year-old man with no prior health issues was healthy until five years ago when he started having mild difficulty running while playing sports. He initially ignored it, thinking it was due to overexertion. Over time, his symptoms worsened, affecting his walking, writing, grooming, buttoning his shirt, and speech. The symptoms developed gradually, progressed slowly, affected both sides symmetrically, and worsened with movement. He sought medical help at a nearby hospital, where an MRI revealed diffuse cerebellar atrophy. As his condition continued to worsen despite medication, he sought further treatment at SJGAUH.

### Past History

No h/o any habits (Alcohol/smoking)
No h/o any infectious disease
No h/o fall / injury

### Medical History

Tab Parkitidin 1-0-1 A/F
Tab Neurobin 1-0-0 A/F

### Family history

No H/O consanguineous parentage

**Table 1: Personal history**

| | |
|---|---|
| Name: xyz | Bowel: Regular |
| Age: 24 years | Appetite: Regular |
| Marital status: Unmarried | Habits: None |
| Occupation: Software engineer | Height: 173cm |
| Diet: Mixed | Weight: 70kg |

### General Examinations

Pulse - 70/min
BP - 130/80 mmhg
RS - 20/min, bilaterally symmetrical
CVS - S1, S2 heard
Weight – 70kg
Height – 173 cm
BMI – 23.4 kg/m$^2$

**Table 2: *Ashtasthana pareeksha***

| | |
|---|---|
| *Nadi* | *Prakruta*, 70bpm |
| *Mutra* | *Prakruta* - 3-4 times/day<br>0-1 time/night |
| *Mala* | *Prakruta* - 1 time/day |
| *Jihwa* | *Alipta* |
| *Shabda* | *Prakruta* |

| | |
|---|---|
| *Sparsha* | *Sheetha sparsha* |
| *Drik* | Blurring of vision - Bilaterally |
| *Akriti* | *Madyama* |

**Table 3: *Dashavidha pareeksha***

| | |
|---|---|
| *Prakriti: Vata pitta* | *Satmya: Sarvarasa sathmya* |
| *Vikriti: Dosha-Vata (Prana, Vyana), Kapha (Shleshaka), Dhatu- Asthi, Majja* | *Ahara shakti: Abhyavaharana– Madyama Jarana - Madyama* |
| *Sara: Madhyama* | *Vyayama shakti: Madhyama* |
| *Samhanana: Madhyama* | *Vaya: Madhyama* (24 years) |
| *Satva: Pravara* | *Pramana*: Ht- 173cm Wt- 70kg |

**Systemic Examination**

Cardiovascular system: S1 S2 heard, no abnormality detected.
Respiratory system: NVBS heard, no abnormality detected.
Gastrointestinal system: P/A- soft, non-tender

**Musculoskeletal system**

Gait - Wide based gait
Spine - No abnormalities

**Central Nervous System**

HMF - Conscious, Oriented to time, place, person
Speech - Slow, irregular rhythm, slurred speech

**Table 4: Motor system examination**

| | RUL | LUL | RLL | LLL |
|---|---|---|---|---|
| Power | 4/5 | 4/5 | 4/5 | 4/5 |
| Tone | Normotonic | Normotonic | Normotonic | Normotonic |
| Bulk | No atrophy/ hypertrophy | No atrophy/ hypertrophy | No atrophy/ hypertrophy | No atrophy/ hypertrophy |

Sensory System - NAD
Reflexes - Superficial reflexes and Deep reflexes - intact

**Table 5: Co-ordination – Upper limb**

| | **Right side** | **Left side** |
|---|---|---|
| Finger chasing | Dysmetria - overshooting less than 15cm | Dysmetria- Overshooting less than 15cm |
| Finger - Nose test | Tremor with an amplitude <5cm | Tremor with an amplitude <5cm |
| Dysdiadokinasia | Positive (relevant interruptions, but perform, 10s) | Positive (relevant interruptions, but perform, 10s) |

**Table 6: Co-ordination – Lower limb**

| | **Right side** | **Left side** |
|---|---|---|
| Heel-shin test | Dysmetria- Overshooting less than 15cm | Dysmetria- Overshooting less than 15cm |

Romberg's sign - Negative

**Eye – Examination**

Gaze stability - Nystagmus
Smooth persuit - Ipsilateral dysmetria
Vestibulo- Occular reflex - Difficulty maintaining stable gaze during head movement.

**Investigations**

MRI brain with screening of whole spine - 7-7-2022
Diffuse cerebellar atrophy with ex vacuo dilatation of the fourth ventricle and prominence of the folia.
Cerebrum is unremarkable.

**Table 7: *Samprapti ghataka***

| | | | |
|---|---|---|---|
| *Dosha* | *Vata Kapha* | *Udbhavasthana* | *Pakvashaya* |
| *Dushya* | *Asthi, Majja* | *Sancharasthana* | *Sarva shareera* |
| *Agni* | *Jatharagni, Dhatvagni* | *Vyaktasthana* | *Sarva shareera* |
| *Agnidushti* | *Mandagni* | *Adhistana* | *Mastulunga* |
| *Srotas* | *Asthivaha, Majjavaha* | *Rogamarga* | *Madhyama* |
| *Srotodushti* | *Sanga* | *Sadhyasadhyata* | *Krichrasadhya* |

***Roga Pareeksha***

*Nidana – Utpadaka hetu - Beeja dusti*

*Vyanjaka hetu - Ahara* - Eating late at night, excess of *Katu* and *Rooksha ahara sevana*

*Vihara - Ratri jagarana*

*Manasika - Ati chinta*

*Poorvaroopam – Avyakta*

*Roopa - Gatisangha, Vaakgraha, Kampana, Sthambhana*

*Upashaya* – None

*Anupashaya* – None

***Samprapti***

*Beeja dusti* → *Kavaigunyata in Mastulunga* → *Ama*

*Aharaja, Viharaja nidana + Chinta* → *Vata Prakopa* → *Agni dusti*

*Ama* + *Agni dusti* → Improper formation of *Dhathus* → *Dhathu Kshaya* (*Majja/Masthulunga Kshaya)* → *Dhathukshaya janya vatavyadhi*

**Table 8: Treatment protocol adopted**

| S.No | Days | Treatment |
|---|---|---|
| 1. | 3 days- 5/11/24-7/11/24 | *Saravanga abhyanga* with *Ksheerabala taila* followed by *Sarvanga Dashamoola parisheka.* |
| 2. | 1 day - 8/11/24 | *Koshta shodhana* with *Gandarvahastadi taila* 30ml with 50ml of warm water - 8:30 am - 3 *Vegas* were noticed. |
| 3. | 10 days- 9/11/24-18/11/24 | *Sarvanga Abhyanga* with *Ksheerabala taila* followed by *Shastika shali pinda sweda* |
| 4. | 10 days- 9/11/24-18/11/24 | *Madhutailika basti - Kala* pattern<br>*Kashaya - Erandamooladi qwatha* - 500ml<br>*Anuvasana basti* with *Mahamasha taila* - 60ml |

**Table 7: Contents of *Madhutailika basti***

| ***Madhutailika basti*** | |
|---|---|
| **Ingredients** | **Quantity** |
| *Madhu* | 80ml |
| *Saindava lavana* | 10gm |
| *Moorchita tila taila* | 80ml |
| *Shathapushpa kalka* | 20gm |
| *Erandamooladi Kashaya* | 310ml |
| Total | 500ml |

*Anuvasana basti – Mahamasha taila* – 60 ml

**Table 8: *Basti* schedule**

| 9/11 | 10/11 | 11/11 | 12/11 | 13/11 | 14/11 | 15/11 | 16/11 | 17/11 | 18/11 |
|---|---|---|---|---|---|---|---|---|---|
| | | N | N | N | N | N | N | | |
| A | A | A | A | A | A | A | A | A | A |

N – *Niruha basti*

A – *Anuvasana basti*

**Oral Medications**

1. Tab. *Brihatvata chintamani* 1-0-1 A/F
2. *Ashwaganda ksheerapaka* 10-0-10 ml A/F

**Physiotherapy**

1. Single leg stance
2. Walking in straight line
3. Standing heel to toe balance

**Table 9: Assessment criteria**

| Assessment Criteria | Before Treatment | After Treatment |
|---|---|---|
| Stiffness | Present | Absent |
| Power | 4/5 (all limbs) | 4/5 (subjectively improved) |
| Tandem walking | Not possible | Possible for 5 steps |
| SARA Score | 18 | 10 |
| Gait | 3 | 2 |
| Stance | 2 | 1 |
| Sitting | 1 | 0 |
| Speech disturbance | 3 | 1 |
| Finger chase | 2 | 2 |
| Nose-finger test | 2 | 1 |
| Alternating hand movements | 2 | 1 |
| Heel-shin slide | 3 | 2 |

## DISCUSSION

Cerebellar Ataxia is a neurological condition characterized by a lack of muscle coordination that stems from dysfunction or damage to the cerebellum. It often involves progressive cerebellar atrophy, its afferent and efferent pathways, and the frontoponto-cerebellar pathway. Characterized by slurred speech, stumbling, falling, and incoordination. The primary causes include: Genetic mutations, degeneration of the cerebellum and spinal cord, protein misfolding and aggregation, mitochondrial dysfunction, and oxidative stress. Among its numerous types, type 1, 2, 3 and 6 are most common.

SCA6 is an autosomal dominant neurodegenerative disorder characterized by progressive cerebellar ataxia, primarily affecting motor coordination. It is one of the milder forms of spinocerebellar ataxias and presents with relatively isolated cerebellar dysfunction. Caused by an expansion of the CAG trinucleotide repeat in the CACNA1A gene on chromosome 19p13 or can be inherited as autosomal dominant. Symptoms include gait instability, difficulty with fine motor tasks, dysarthria, nystagmus, and difficulty with smooth pursuit or saccades.

In Ayurveda, cerebellar ataxia does not have a direct equivalent, but based on its symptoms, it can be linked to *Vatavyadhi*. The cerebellum can be correlated with *Mastulunga* (*Shirogata Majja Dhatu*), and its degeneration (*Kshaya*) is similar to cerebellar atrophy. *Acharya Charaka* describes *Vatavikara* as one of the symptoms of *Majja Dhatu Kshaya*[6]. Therefore, cerebellar ataxia can be considered as a type of *Dhatu Kshaya Janya Vatavikara*.

शीर्यन्त इव चास्थीनि दुर्बलानि लघूनि च|
प्रततं वातरोगीणि क्षीणे मज्जनि देहिनाम्||६८|| Cha.Su.17/68

Hence *Samanya Vatavyadhi chikitsa* involving *Snehana, Swedana, Basti* was adopted here.

**Discussion on *Chikitsa***

Initially patient had *Sthambhana* (spasticity) to remove it, *Rookshana* was adopted in the form of *Dashamoola Qwatha Parisheka* for 3 days. It was followed by *Sarvanga Abhyanga* with *Ksheerabala taila* and *Shastika shali pinda sweda.*

- *Shastika shali pinda sweda- Shashtika Shali Pinda Sweda* is a well-known oil-based fomentation classified under *Sankara Sweda*. It involves using boluses made of *Shashtika Shali*, *Balamoola*, and *Ksheera*. Its *Ushna guna* stimulates the sympathetic nervous system, promoting vasodilation. The treatment helps liquefy toxins, allowing their removal through the skin. It softens the body, relieves joint stiffness, cleanses micro-channels, and improves circulation in neurological disorders[7].
- *Basti* is considered as *Shresta chikitsa* to treat the *Vatavyadhi, Madhutailika Basti*[8] was adopted to tackle all the *Tridoshas* involved.

  मधुतैले समे स्यातां क्वाथश्चैरण्डमूलजः |
  पलार्धं शतपुष्पायास्ततोऽर्धं सैन्धवस्य च ||१००||
  फलेनैकेन संयुक्तः खजेन च विलोडितः |
  देयः सुखोष्णो भिषजा माधुतैलिकसञ्ज्ञितः ||१०१||
- As the *Samprapti* involved was *Dhathu kshaya janya*, for the *Poshana* of *Dhathus, Erandamooladi niruha basti* was adopted in *Madhutailika* pattern, in which *Madhu* and *Taila* are used in same proportion, which balances *Tridosha*, and nourishes the *Dhathus.*
- *Madhutailika basti* is a *Napunsaka basti* which acts as both *Shodhananga* and *Brihmananga* based on the drugs used.
- *Erandamoola* is the main drug used which is *Vrishya* and *Balya* in nature.

**CONCLUSION**

- Cerebellar ataxia is a degenerative condition of the nervous system. Contemporary medical management focuses primarily on symptomatic relief, with limited options to halt disease progression and medications often associated with side effects.
- In Ayurveda cerebellar ataxia can be considered under the broad spectrum of *Dhathukshayajanya Vataroga. Samanya Vatavayadhi chikitsa* in the form of *Brihmana basti, Snehana nasya, Masthishkya, Shamananga* and *Brihmananga snehana* helps in halting the disease progression.
- In the present case, Patient was treated with *Sarvanga Parisheka, Sarvanga Abhyanga, Shastika shali pinda sweda* and *Madhutailika basti*, where a significant improvement in co-ordination was seen. SARA score reduced to 10, which was 18 earlier.
- Ayurveda helps in enhancing the quality of life by halting the disease progression without any further complications.

**REFERENCES**


1. Bhandari J, Thada PK, Samanta D. Spinocerebellar Ataxia. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan.
2. https://www.ninds.nih.gov/health-information/disorders/spinocerebellar-ataxias-including-machado-joseph-disease
3. Jones TM et.al. Treatment of Cerebellar Ataxia, Neurodegenerative disease management vol.4 (5)
4. L. Ruano, *et al,* The global epidemiology of hereditary ataxia and spastic paraplegia: a systematic review of prevalence studies, Neuroepidemiology, 42 (3) (2014), pp. 174-183
5. Murthy SK, editor. Astagahridaya of Vagbhatta, Nidana Sthana; Adhyaya 11, Ver.15. Varanasi: Chaukhamba Sanskrit pratishthan Delhi; 2011: 529
6. Agnivesha, Charaka, Dridhabala. Sutra Sthana, Chapter 17 verse 68. In: Acharya JT (editor). Charaka Samhita with Ayurveda Dipika Commentary. Reprint 2014 edition. New Delhi: Chaukhambha Publications. 2014;
7. Krupa Parmar, Sangeeta H Toshikhane, Rahul Rathore. Role of Shastika Shali Pinda Sweda in the Management of Pakshaghata. AYUSHDHARA, 2024; 11 (6): 170-174
8. Acharya YT, ed., Susruta Samhita of Susruta with Nibandha sangraha commentary by Sri Dalhanacharya and Nyayacandrika panjika by Sri Gayadasa acharya, Chikitsa sthana, 38th chapter, verse-100-101. Varanasi: Chowkhamba Krishnadas Academy, 2021



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